

**Amendments to the Specification:**

Please add the following paragraph to the specification at page 2, line 28:

FIG. 2 is an operational timing diagram illustrating operations of the conventional circuit of FIG. 1. More particularly, FIG. 2 illustrates a clock signal **CLK**, control signals **DL0** and **DL1**, and sequentially activated CAS latency information signals **CDQ0\_F0**, **CDQ0\_S0**, **CDQ0\_F1**, **CDQ0\_S1**, **CDQ1\_F0**, **CDQ1\_S0**, **CDQ1\_F1**, **CDQ1\_S1**. FIG. 2 also shows output signal **DOUT**, which is output at output terminal **DQ**.

Please amend the paragraph at page 2, line 28 to page 3, line 2 as follows:

In a conventional output multiplexing circuit as described above, as the CAS latency information increases, a parasitic capacitance of the node **NODE1** may increase. As such, it may be difficult to perform high-frequency operations. Moreover, when an operating frequency increases, CAS latency generally increases. In the case of a memory device having CAS latency of 10, *i* may be 5, and the number of **CDQi** lines may be 20. All of the **CDQi** lines may be input into respective output terminals **DQ of an output driver 131**. **The output driver 131 may be controlled in response to an output enable signal PTRST and an inverted output enable signal PTRSTB**. Thus, in the case of a wide output terminal **DQ** (e.g., X16 or X32), the area of a chip may increase due to **CDQi** line routing.

Please amend the paragraph at page 5, line 32 to page 6, line 5 as follows:

Referring to FIG. 3, an output multiplexing circuit according to some embodiments of the present invention includes a plurality of first switch groups **301**, **302**, **303**, and **304**, each of which comprises four first switches **S01**, **S02**, **S03**, and **S04**, a plurality of latch groups **311**, **312**, **313**, and **314**, each of which comprises four first latches **L01**, **L02**, **L03**, and **L04**, a plurality of second switch groups **321**, **322**, **323**, and **324**, each of which comprises four second switches **S21**, **S22**, **S23**, and **S24**, four third switches **S31**, **S32**, **S33**, and **S34**, four second latches **L11**, **L12**, **L13**, **L14**, and two fourth switches **S41** and **S42**. **The four third switches S31, S32, S33, and S34, four second latches L11, L12, L13, L14, and two fourth switches S41 and S42 are included in a second stage of the output multiplexing circuit. The output multiplexing circuit further includes an output driver 331 that is controlled in response**

to output enable signal PTRST and inverted output enable signal PTRSTB to output data on output terminal DQ.

Please amend the paragraph at page 6, lines 6-11 as follows:

The first switches S01, S02, S03, and S04 transfer 4-bit data DO\_F0, DO\_S0, DO\_F1, and DO\_S1, which are transmitted from a memory cell array 330 via a data path, to the first latches L01, L02, L03, and L04 in response to corresponding control signals DLi (i is an integer between 0 and n inclusive). Thus, the 4-bit data DO\_F0, DO\_S0, DO\_F1, and DO\_S1 is transferred via the first switches S01, S02, S03, and S04, is simultaneously prefetched into the first latches L01, L02, L03, and L04.

Please amend the paragraph at page 6, line 27 to page 7, line 5 as follows:

The fourth switches S41 and S42 sequentially transfer the data stored in the second latches L11, L12, L13, and L14 at a rising edge F and a falling edge S of a delay signal CLKDQ of the clock signal CLK to an input terminal DOD of an output driver 331 of a memory device. More specifically, in some embodiments, at a first rising edge F of the delay signal CLKDQ (illustrated as CLKDQ\_F), the data stored in the latch L11 is transferred to the input terminal DOD of the output driver 331 via the switch S41, and at a first falling edge S of the delay signal CLKDQ (illustrated as CLKDQ\_S), the data stored in the latch L13 is transferred to the input terminal DOD of the output driver 331 via the switch S42. Next, at a second rising edge F of the delay signal CLKDQ (i.e. CLKDQ\_F), the data stored in the latch L12 is transferred to the input terminal DOD of the output driver 331 via the switch S41, and at a second falling edge S of the delay signal CLKDQ (i.e. CLKDQ\_S), the data stored in the latch L14 is transferred to the input terminal DOD of the output driver 331 via the switch S42.

Please amend the paragraph at page 7, lines 6-16 as follows:

Hereinafter, the operation of an output multiplexing circuit shown in FIG. 3, according to some embodiments of the present invention will be described in greater detail, with reference to the operational timing diagram of FIG. 5. First, similar to FIG. 1, when [[DLi]] DL0 is activated, 4-bit data transmitted via first switches S01, S02, S03, and S04 is

In re: Sang-bo Lee  
Application No.: 10/815,574  
Filed: April 1, 2004  
Page 4 of 9

simultaneously prefetched into first latches **L01**, **L02**, **L03**, and **L04**. Next, in contrast to FIG. 1, when [[CDQi]] **CDQ0** is activated, the 4-bit data prefetched into the first latches **L01**, **L02**, **L03**, and **L04** is simultaneously transferred to four nodes **NODE0**, **NODE1**, **NODE2**, and **NODE3** via second switches **S21**, **S22**, **S23**, and **S24**. Data is similarly prefetched and transferred responsive to the activation of **DL1** and **CDQ1**, respectively. In the case of using a 4-bit prefetch technique, data is output for two cycles of a clock signal **CLK**. Thus, for example, after **CDQ0** is enabled, **CDQ1** is enabled after two cycles of the clock signal **CLK**, as shown in FIG. 5.

Please amend the paragraph at page 7, lines 22-25 as follows:

Finally, the data stored in the second latches **L11**, **L12**, **L13**, and **L14** is transferred to an input terminal **DOD** of the output driver **331** at a rising edge **F** and a falling edge **S** of a delay signal **CLKDQ** of the clock signal **CLK** via fourth switches **S41** and **S42** for two cycles of the clock signal **CLK**, for output as output signal **DOUT** via output terminal **DQ**.